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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

SAOUD, C

ART UNIT	PAPER NUMBER
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1646

26

DATE MAILED:

03/06/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/469,641

Applicant(s)

HU et al.

Examiner

Christine Saoud

Group Art Unit

1646



☒ Responsive to communication(s) filed on Sep 2, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 74-135 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 74, 75, 78, 81-83, 86-88, 91-93, 96-98, 101-103, 106-108, 111-113, 116 are allowed.

☒ Claim(s) 76, 77, 79, 80, 84, 85, 89, 90, 94, 95, 99, 100, 104, 105, 109, 110, 114 are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Status of the Claims

1. Prosecution is reopened. Claims 74-135 are pending in the instant application. The indicated allowability of claims 76-77, 79-80, 84-85, 89-90, 94-95, 99-100, 104-105, 109-110, 114-115, 119-120, 122-135 is withdrawn in view of the newly discovered reference(s) to Eriksson et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 76-77, 79-80, 84-85, 89-90, 94-95, 99-100, 104-105, 109-110, 114-115, 122-133, and 135 are rejected under 35 U.S.C. 102(e) as being anticipated by Eriksson et al. (U.S. Pat. No. 5,928,939).

The instant claims are directed to polynucleotides encoding polypeptides comprising at least 50 contiguous amino acids of SEQ ID NO:2, as well as specific fragments spanning amino acids 69-82 and 46-123 of SEQ ID NO:2, fragments which have angiogenic activity or antigenic activity. The claims are further directed to polynucleotides encoding polypeptides which

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comprise a heterologous polypeptide, recombinant production, host cells, addition of regulatory elements, and pharmaceutical compositions. Polynucleotides comprising specific polynucleotide sequences are also claimed.

Eriksson et al. teach a polypeptides of SEQ ID NO:11 and 15 which share a contiguous stretch of 119 and 149 identical amino acids, respectively, with the polypeptide of SEQ ID NO:2 of the instant application (see Figure 11 and 15 of Eriksson et al.). The polynucleotides of Eriksson et al. (SEQ ID NO:10 and 14) are also identical to the corresponding region in SEQ ID NO: 1 of the instant specification. These polynucleotides clearly anticipate the polynucleotides of claims 76-77, 79-80, 122-128 and 135. Some of the claims require the polynucleotide to encode a polypeptide having antigenic activity, however, the polypeptides of Eriksson et al. would clearly bind an antibody having specificity for the polypeptide of SEQ ID NO:2 of the instant application due to the high degree of sequence identity. Additionally, the polypeptides of Eriksson et al. also possess angiogenic activity, meeting the limitations of the claims to a polypeptide fragment comprising 50 contigs and having angiogenic activity. Claims 84-85 and 89-90 require a heterologous polynucleotide, however, Eriksson et al. teach the expression of the polypeptide of SEQ ID NO:11 with a mellitin signal peptide, which is a heterologous peptide from honeybees (see column 15, lines 25-44), therefore, expression would require the presence of a heterologous polynucleotide. The polypeptides of Eriksson et al. are produced recombinantly (see Example 9 beginning in column 14, line 52), requiring recombinant production methods (claims 114-115, 133), a vector (claims 94-95, 129), regulatory sequences (claims 99-100, 130), and a host cell

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(claims 104-105, 109-110, 132). Therefore, the claims are anticipated by Eriksson et al., absent evidence to the contrary.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 119-120 and 134 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson et al. as applied to the claims above.

Eriksson et al. is as described above. Eriksson et al. do not specifically teach the polynucleotides in a pharmaceutical composition. However, it would have been prima facie obvious to one of ordinary skill in the art at the time the instant invention was made to include the polynucleotides of Eriksson et al. in a pharmaceutically acceptable buffer for the purposes of storage or for administration to an individual for gene therapy purposes.

Allowable Subject Matter

6. Claims 74-75, 78, 81-83, 86-88, 91-93, 96-98, 101-103, 106-108, 111-113, 116-118, and 121 are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Saoud, Ph.D., whose telephone number is (703) 305-7519. The examiner can normally be reached on Monday to Friday from 8AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz, can be reached on (703) 308-4623. The fax phone number for this Group is (703) 308-0294.

Official papers filed by fax should be directed to (703) 308-4227. Faxed draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

March 1, 2000

**CHRISTINE SAOUD
PATENT EXAMINER**

Christine Saoud